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Kentucky's Timber Industry—An Assessment of Timber Product Output and Use, 2005

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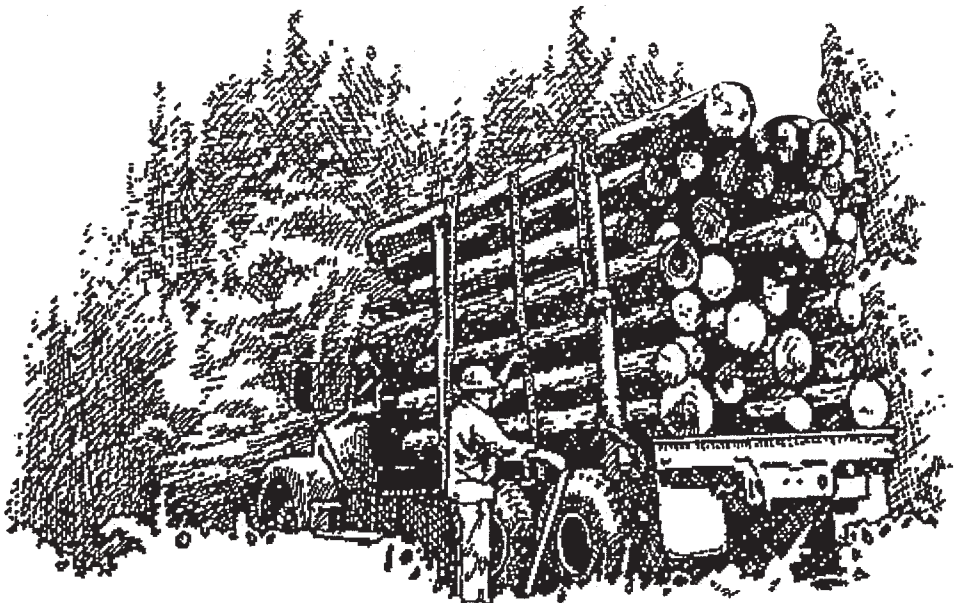

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Foreword

This report contains the findings of a 2005 canvass of all primary wood-using plants in Kentucky, and presents changes in product output and residue use since 2003. It complements the Forest Inventory and Analysis periodic inventory of volume and removals from the State's timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2005 and to determine interstate and cross-regional movement of industrial roundwood. Only primary wood-using mills were canvassed. Primary mills are those that process roundwood in log or bolt form or as chipped roundwood. Examples of industrial roundwood products are saw logs, pulpwood, veneer logs, poles, and logs used for composite board products. Mills producing products from residues generated at primary and secondary processors were not canvassed. Trees chipped in the woods were included in the estimate of timber drain only if they were delivered to a primary domestic manufacturer.

A sampled canvass of certain wood processors in Kentucky was conducted in 2006 to obtain information for 2005. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Kentucky timberland was incorporated into Kentucky production estimates. Each mill was canvassed by mail or through personal contact at plant locations. Telephone contacts followed mailed questionnaire responses when additional information or clarification of a response was necessary. In the event of a nonresponse, data collected in previous surveys were updated using current data collected for mills of similar size, product type, and location. Surveys for all timber products other than pulpwood began in 1948, and are currently conducted every 2 years.

Pulpwood production data were taken from an annual canvass of all southern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

Acknowledgments

The authors thank Timothy Metzger and Christopher Oswalt for review and comments; Carolyn Steppleton for her tireless efforts in processing and accuracy of the data; Sonja Oswalt for the mill map; Helen Beresford for TPO database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and statistical checking; and the Southern Research Station (SRS) Technical Publications Team for editorial review, styling, and publication of this report.

The SRS gratefully acknowledges the cooperation and assistance provided by the Kentucky Department of Forestry in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

Timber Product Output Database Retrieval System

The Forest Inventory and Analysis (FIA) Research Work Unit of the USDA Forest Service developed the Timber Product Output (TPO) Database Retrieval System to help customers answer questions about timber harvesting and use in the Southern Region. This system acts as an interface to a standard set of consistently coded TPO data for each State and county in the region and Nation. This regional and national set of TPO data consists of 11 variables that describe for each county the roundwood products harvested, logging residues left in the woods, other timber removals (i.e. land clearing and reserved timber removals), and wood and bark residues generated by the county's primary wood-using mills. The system is available through the FIA Web site: http://srsfia2.fs.fed.us/php/tpo2/tpo.php.

The database is well documented and easy to use. The retrieval system allows the user to select the TPO variables of interest and generate a standard set of timber products, removals, and mill residue tables for the specified resource area, State, or region. The system has been logically divided into two sections to assist the user in making specific data requests. In section 1, the user will be asked to define the resource area, and section 2 generates tables for the specified area. In each section, the user is asked to supply specific options that will serve to customize the database retrieval.

There are four options available for defining the geographic area of interest. Each option provides an increasing level of detail. The region, subregion, State, or county defines an area. The user selects the option that best suits the level of detail required. Users who select county as an option should be aware that some counties have been combined due to data sensitivity. These combined counties are identified with asterisks in the output tables.

The TPO contacts are listed for each region to provide additional explanation or clarification.

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[a] All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied in the format the customer requests.

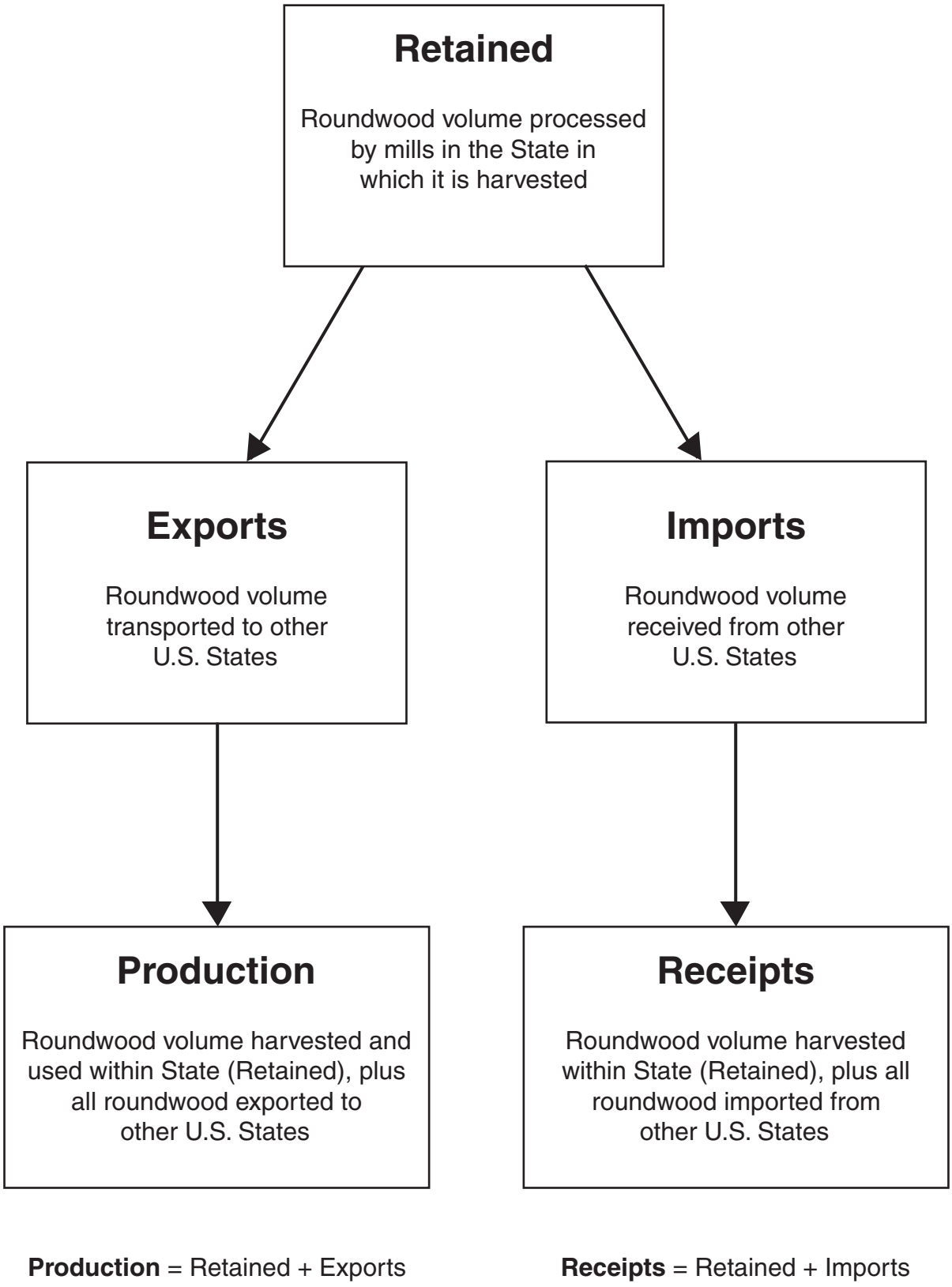

Figure 1—Movement of roundwood exports and imports within the United States.

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Output of Industrial Timber Products

Note: Certain terms used in this report—retained, export, import, production, and receipts—have specialized meanings unique to Forest Inventory and Analysis Units across the country that deal with timber product output (TPO) (fig. 1).

All Products

- Between 2003 and 2005, the combined industrial TPO from roundwood and plant byproducts increased by 2 percent, from 276 to 282 million cubic feet.
- TPO from roundwood was up 5 million cubic feet, or 3 percent, to 191 million cubic feet, while output of plant byproducts increased 1.6 million cubic feet to 91 million cubic feet.
- Output of hardwood roundwood products increased 1 percent to 179 million cubic feet, while output of softwood roundwood products was up 20 percent to 13 million cubic feet (fig. 2).
- Saw logs and pulpwood were the principal roundwood products in 2005. Combined output of these products totaled 168 million cubic feet and accounted for 88 percent of Kentucky's total roundwood output (fig. 3).
- Total receipts at Kentucky mills, which included roundwood harvested and retained in the State, as well as roundwood imported from other States, increased 2 percent to 214 million cubic feet. At the same time, the number of primary roundwood-using plants in Kentucky declined from 297 in 2003 to 292 in 2005 (fig. 4).
- Across all products, 86 percent of roundwood harvested was retained for processing at Kentucky mills. Exports of roundwood to other States amounted to 27 million cubic feet, while imports of roundwood amounted to 50 million cubic feet making the State a net importer of roundwood. Tables A.8 to A.11 show exports to and imports from other States by individual product type.

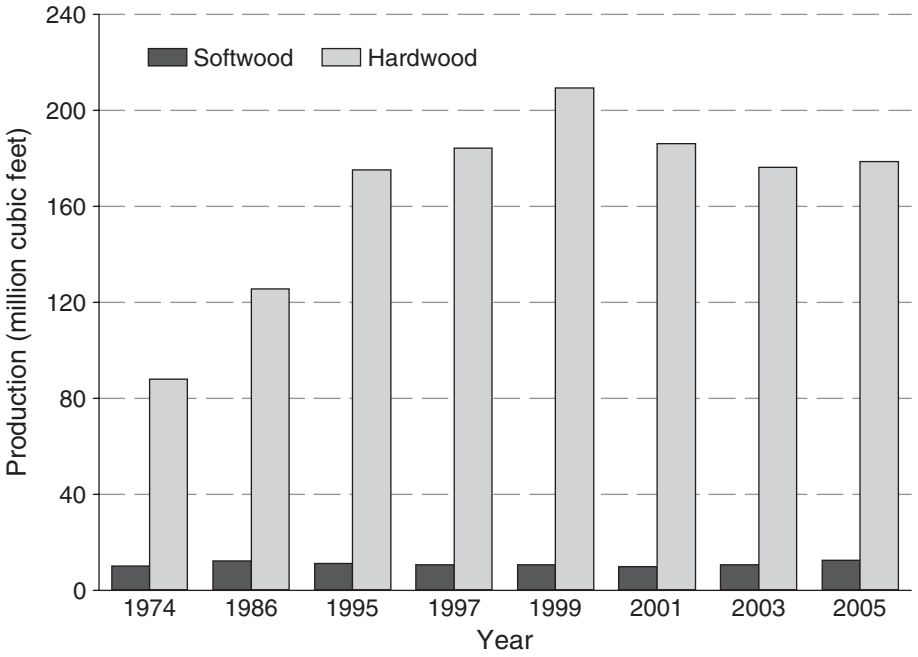

Figure 2—Roundwood production for all products by species group and year (see page 7 for references for individual years).

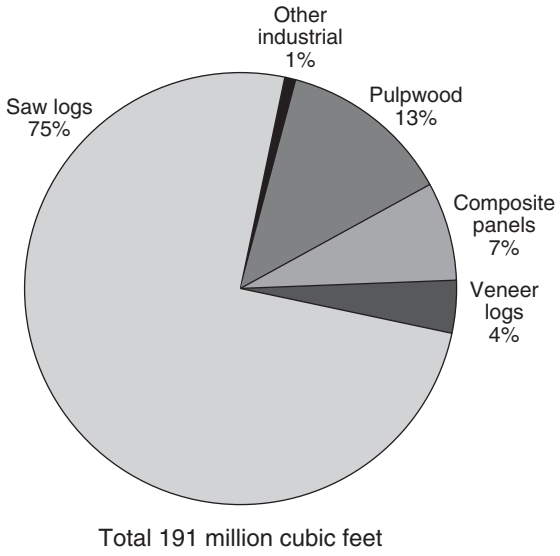

Figure 3—Roundwood production by type of product, 2005.

Saw Logs

- Saw logs accounted for 75 percent of the State's total roundwood products. Output of hardwood saw logs decreased 2 percent to 139 million cubic feet (847 million board feet, International ¼-inch rule), while that of softwood saw logs decreased 5 percent to 4.4 million cubic feet (24 million board feet, International ¼-inch rule) (fig. 5).

- In 2005, Kentucky had 277 sawmills, a net loss of 5 mills since 2003. Total saw-log receipts were down 2 million cubic feet to 145 million cubic feet. Hardwood saw-log receipts decreased by 2 percent, to 141 million cubic feet, while those of softwoods increased 4 percent to 4 million cubic feet. Of the operating mills, 41 percent had receipts of < 1 million board feet, 40 percent had receipts of between 1 and 4.99 million board feet, while 19 percent had receipts of 5 million board feet or greater. Those 53 mills accounted for 64 percent of total saw-log receipts.

- Kentucky retained 93 percent of its saw-log production for manufacture in State; saw-log imports exceeded exports by 2 million cubic feet in 2005.

Pulpwood

- Total pulpwood production, including chipped roundwood, increased 3 million cubic feet to 25 million cubic feet and accounted for 13 percent of the State's total

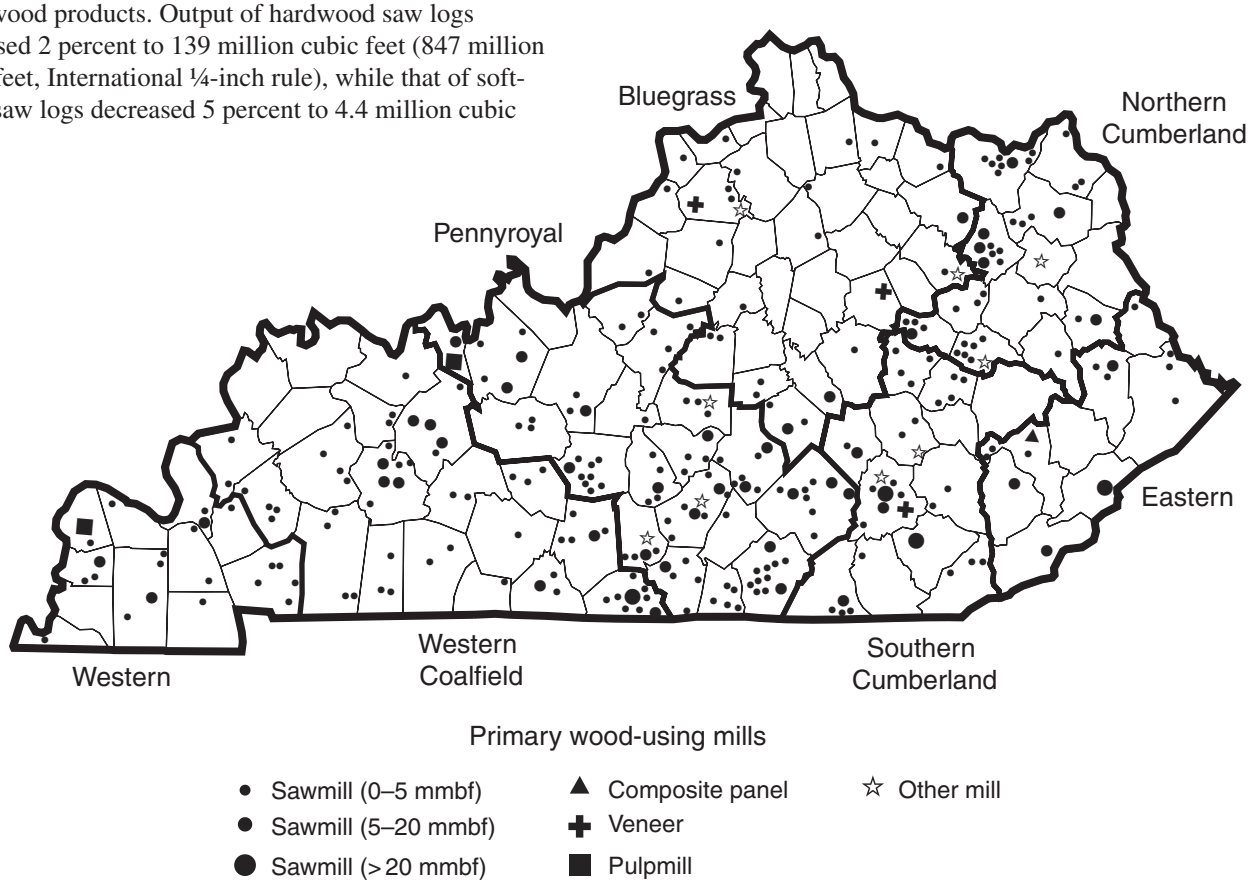

Figure 4—Primary wood-using mills by region, 2005.

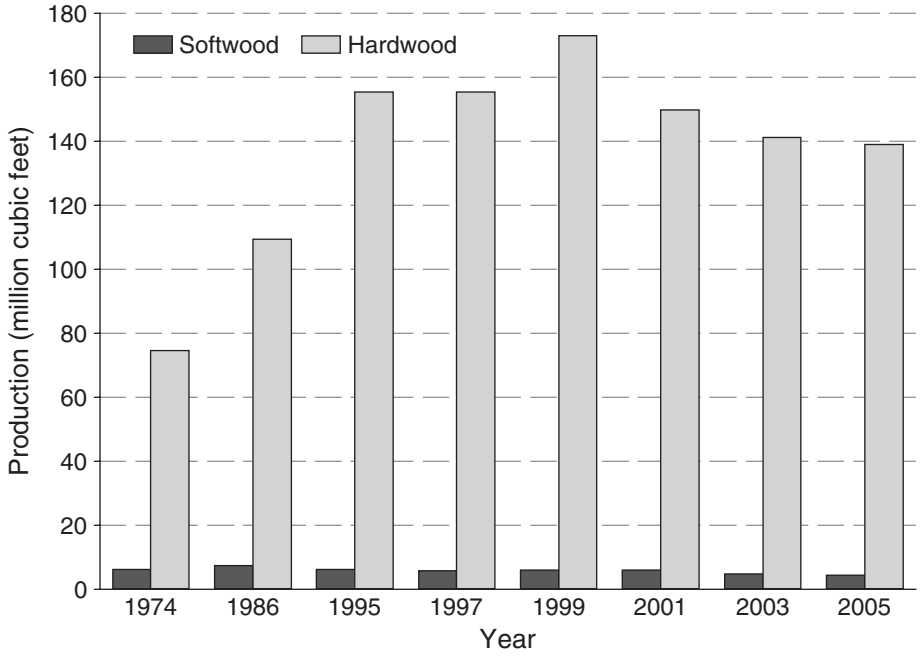

Figure 5—Roundwood saw-log production by species group and year (see page 7 for references for individual years).

roundwood TPO. Hardwood output was up 12 percent to 20 million cubic feet (268,000 cords); softwood output was up 32 percent to 4 million cubic feet (57,000 cords) (fig. 6).

- Two pulpmill facilities were operating and receiving roundwood in Kentucky in 2005, the same as in 2003. Total pulpwood receipts for these mills increased 14 percent, or 7.0 million cubic feet, to 56 million cubic feet, accounting for 26 percent of total receipts for all mills.

- Seventy-three percent of roundwood cut for pulpwood was retained for processing at Kentucky pulpmills. Roundwood pulpwood accounted for 24 percent of total known exports and 75 percent of total imports. Roundwood pulpwood imports amounted to 38 million cubic feet, while exports amounted to 7 million cubic feet, making the State a net importer of pulpwood.

Veneer Logs

- Output of veneer logs was up 40 percent in 2005 and totaled 7.5 million cubic feet (47 million board feet, International ¼-inch rule), 96 percent of which was hardwood (fig. 7). Veneer-log production accounted for 4 percent of the State's total roundwood TPO volume.

- Three veneer mills operated in Kentucky in 2005. Total receipts of veneer logs decreased < 1 percent to 2 million cubic feet.

- Kentucky retained 11 percent of its veneer-log production for processing within the State. Imports amounted to 1 million cubic feet, and exports totaled 6.7 million cubic feet, making the State a net exporter of roundwood veneer logs.

Composite Panels

- Roundwood harvested from Kentucky's forests for composite panels increased 13 percent to 14 million cubic feet (186,000 cords). Hardwood output accounted for nearly all of composite panel production in Kentucky (fig. 8).

Other Industrial Products

- Roundwood harvested for other industrial uses, such as poles, posts, mulch, firewood, and all other industrial products, totaled 1.7 million cubic feet and accounted for 1 percent of the State's total TPO. Softwood made up 97 percent of the other industrial product volume.

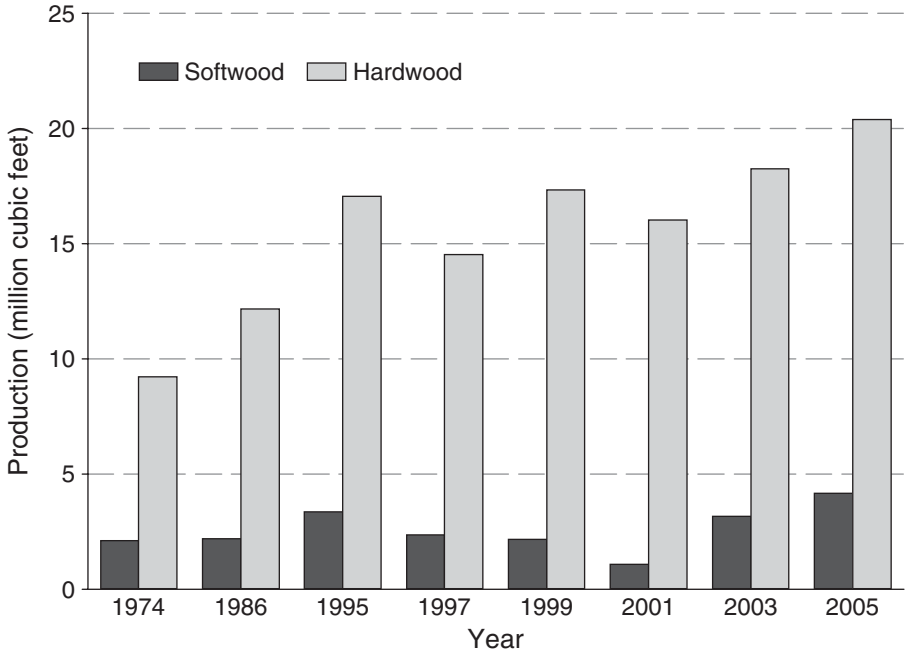

Figure 6—Roundwood pulpwood production by species group and year (see page 7 for references for individual years).

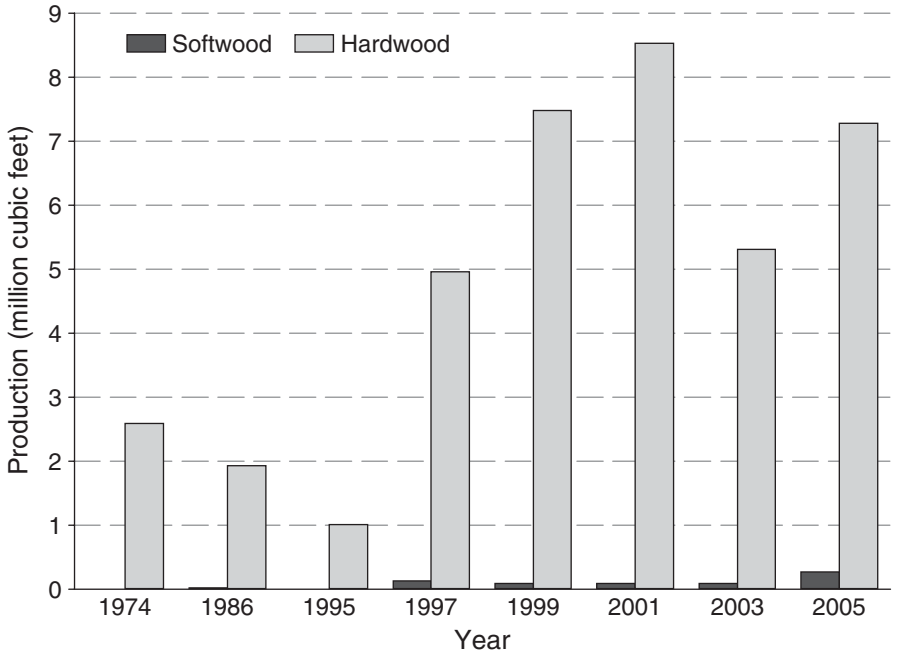

Figure 7—Roundwood veneer-log production by species group and year (see page 7 for references for individual years).

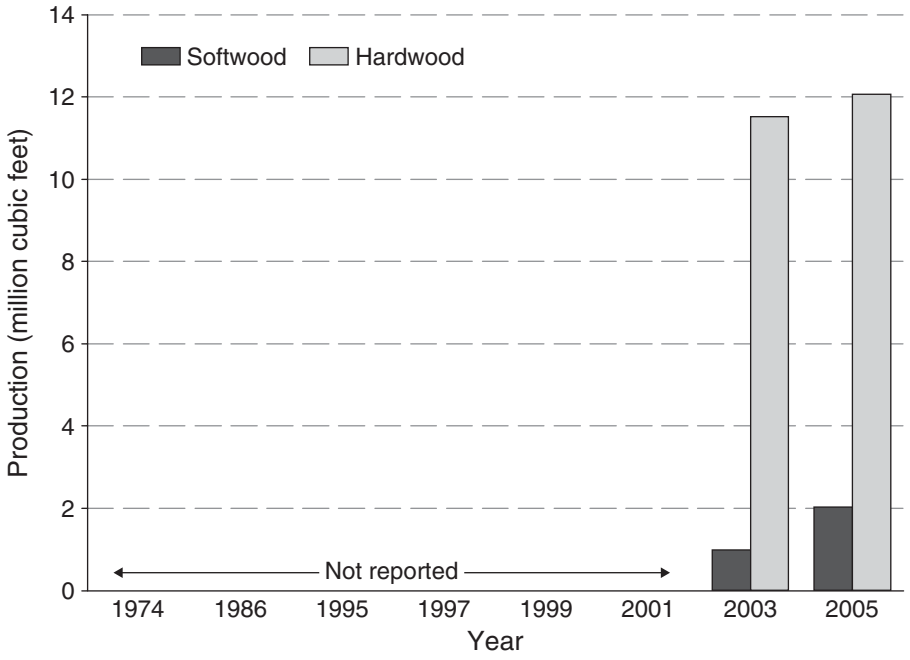

Figure 8—Roundwood production for composite panels by species group and year (see page 7 for references for individual years).

Plant Byproducts

- In 2005, processing of primary products in Kentucky mills generated 95 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 40 million cubic feet, and bark volume totaled 24 million cubic feet. Sawdust and shavings made up 32 percent of total residues, or 30 million cubic feet (fig. 9).

- The processing of saw logs at sawmills generated 84 million cubic feet of mill residues, accounting for 89 percent of the total residues produced (fig. 10).

- Ninety-six percent of the wood and bark residues were used for a product, with 31 percent of the residues used for fuel (fig. 11). Twenty-one million cubic feet, or 53 percent, of the coarse residues were used to manufacture fiber products. Most of the bark was used for other miscellaneous products or industrial fuel, and 43 percent of the sawdust and shavings were used for fuel.

County Data

- Table A.14 shows softwood and hardwood product output by county and individual product type. All 120 counties in Kentucky had either or both softwood and hardwood output. Six counties (Harlan, Knox, Laurel, Ohio, Pike, and Pulaski) had combined softwood and hardwood product output of more than 5 million cubic feet each. These six counties' total product output amounted to nearly 41 million cubic feet and accounted for 21 percent of the State's total product output.

Total Roundwood Output

Using the most recent inventory data for Kentucky, product output by source, ownership, and detailed species group was estimated.

Source

- In addition to the 191 million cubic feet of roundwood output for industrial roundwood, an estimated 21 million cubic feet were harvested for domestic fuelwood, bringng Kentucky's total roundwood output to 212 million cubic feet.

- Eighty-eight percent of total roundwood output was considered growing-stock volume (sawtimber and poletimber) from timberland sources. Other sources (such as saplings; stumps, tops, and limbs of trees on timberland; and trees on nonforest land) contributed an estimated 26 million cubic feet, or 12 percent of total roundwood output (fig. 12).

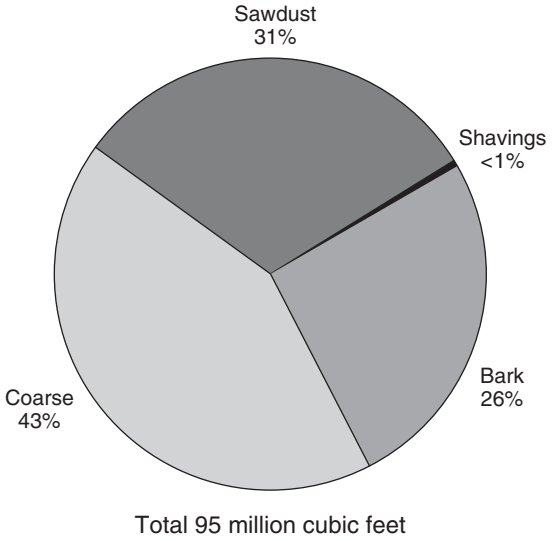

Figure 9—Primary mill residue by residue type, 2005.

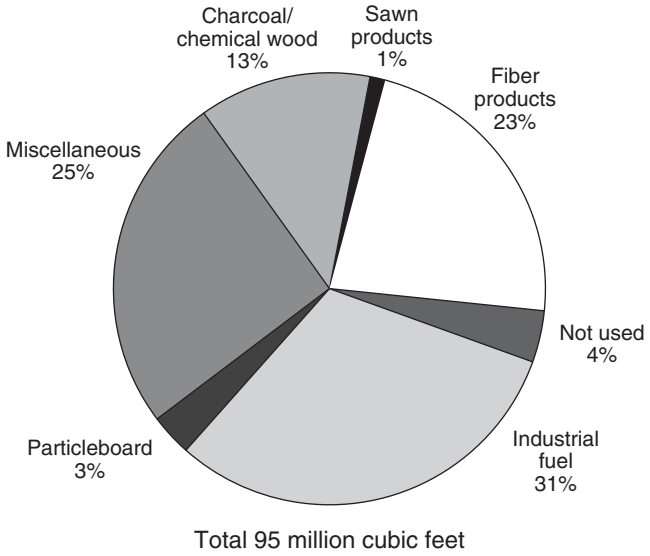

Figure 11—Disposal of residue by product, 2005.

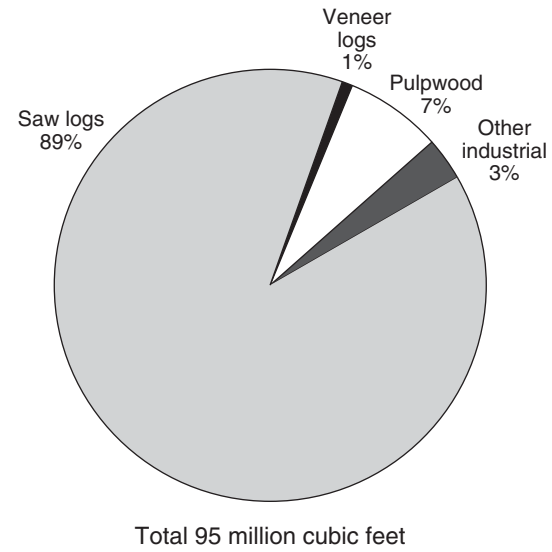

Figure 10—Primary mill residue produced by roundwood type, 2005.

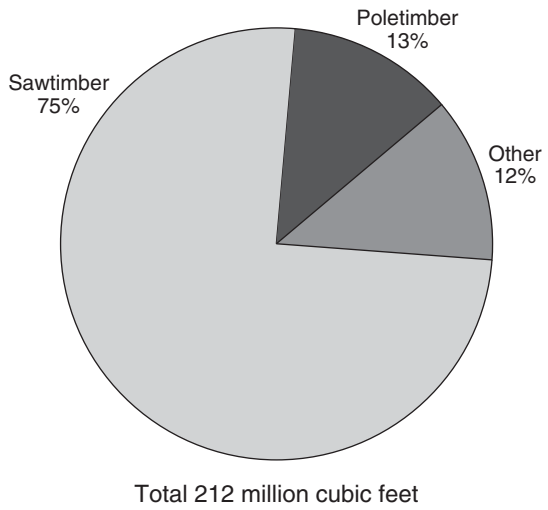

Figure 12—Roundwood output by source, 2005.

Ownership

- An estimated 202 million cubic feet, or 96 percent, of the total roundwood output in 2005 came from nonindustrial private forest lands. Forest industry lands contributed 6 million cubic feet, or 3 percent of the output. Public lands made up the remaining 1 percent, or 3.1 million cubic feet (fig. 13).

Species

- The red oak and white oak groups combined accounted for 96 million cubic feet, or 48 percent of total hardwood output (fig. 14). Yellow-poplar and hickory accounted for 15 and 11 percent, respectively, of the total hardwood output. Other yellow pines provided more volume than any other softwood species group, accounting for 84 percent of the total softwood output (fig. 15). The loblolly and shortleaf pine types accounted for 10 percent of the softwood output.

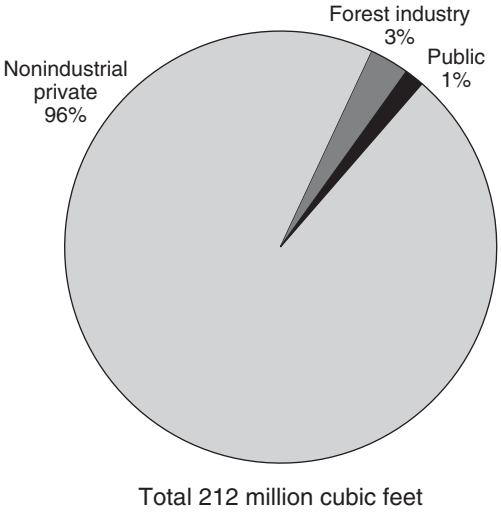

Figure 13—Roundwood output by ownership, 2005.

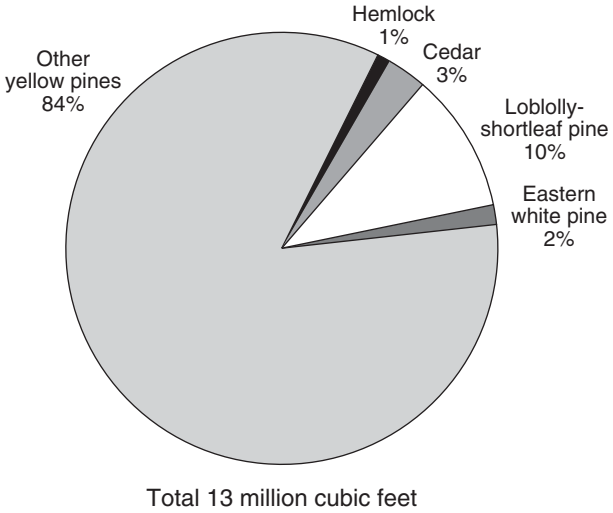

Figure 15—Roundwood output by softwood species group, 2005.

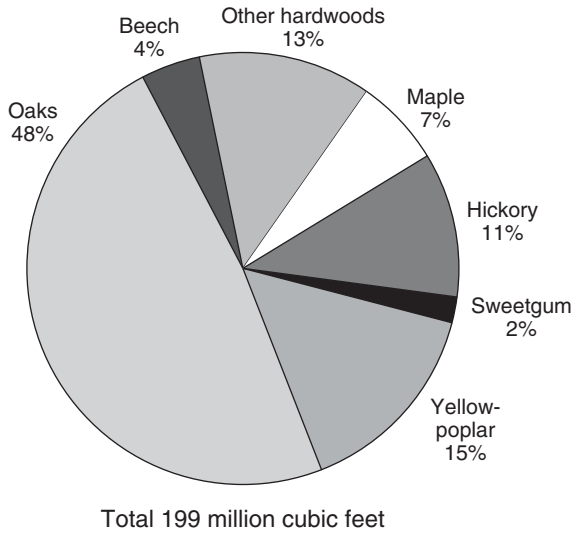

Figure 14—Roundwood output by hardwood species group, 2005.

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Glossary

Board foot. A unit of measure applied to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent) and also associated with roundwood as to its potential yield of such products.

Byproducts. Primary wood products, e.g., pulp chips, animal bedding, and fuelwood, recycled from mill residues.

Composite panels. Roundwood products manufactured into chips, wafers, strands, flakes, shavings, or sawdust and then reconstituted into a variety of panel and engineered lumber products.

Consumption. The quantity of a commodity, such as pulpwood, utilized by a particular mill or group of mills.

Drain. The volume of roundwood removed from any geographic area where timber is grown.

Exports. The volume of domestic roundwood utilized by mills outside the State where timber was cut.

Fiber products. Byproducts used in the manufacture of pulp, paper, paperboard, and composite products, such as chipboard.

Fuelwood production. The volume of roundwood harvested to produce some form of energy, e.g., heat and steam, in residential, industrial or institutional settings.

Growing-stock removals. The growing-stock volume removed from poletimber and sawtimber trees in the timberland inventory. (Note: Includes volume removed for roundwood products, logging residues, and other removals.)

Growing-stock trees. Living trees of commercial species classified as sawtimber, poletimber, saplings, and seedlings. Growing-stock trees must contain at least one 12-foot or two 8-foot logs in the saw-log portion, currently or potentially (if too small to qualify). The log(s) must meet dimension and merchantability standards and have, currently or potentially, one-third of the gross board-foot volume in sound wood.

Growing-stock volume. The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

Soft hardwoods. Hardwood species with an average specific gravity of 0.50 or less, such as gums, yellow-poplar, cottonwoods, red maple, basswoods, and willows.

Hard hardwoods. Hardwood species with an average specific gravity >0.50, such as oaks, hard maples, hickories, and beech.

Imports. The volume of domestic roundwood delivered to a mill or group of mills in a specific State but harvested outside that State.

Industrial fuelwood. A roundwood product, with or without bark, used to generate energy at a manufacturing facility such as a wood-using mill.

Industrial roundwood products. Any primary use of the main stem of a tree, such as saw logs, pulpwood, veneer logs, intended to be processed into primary wood products such as lumber, wood pulp, sheathing, at primary wood-using mills.

International ¼-inch rule. A log rule or formula for estimating the board-foot volume of logs, allowing ½-inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In the form used by FIA, a ¼-inch of kerf is assumed. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Log. A primary forest product harvested in long, primarily 8-, 12-, and 16-foot lengths.

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Merchantable portion. That portion of live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top d.o.b. on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top d.o.b. is included.

Merchantable volume. Solid-wood volume in the merchantable portion of live trees.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nongrowing-stock sources. The net volume removed from the nongrowing-stock portions of poletimber and sawtimber trees (stumps, tops, limbs, cull sections of central stem) and from any portion of a rough, rotten, sapling, dead, or nonforest tree.

Other forest land. Forest land other than timberland and productive reserved forest land. It includes available and reserved forest land that is incapable of producing annually 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Other products. A miscellaneous category of roundwood products, e.g., cooperage, excelsior, shingles, and mill residue byproducts (charcoal, bedding, mulch, etc.).

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use, resulting in the removal of the trees from timberland.

Other sources. (See: Nongrowing-stock sources.)

Ownership. The property owned by one ownership unit, including all parcels of land in the United States.

National forest land. Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Forest industry land. Land owned by companies or individuals operating primary wood-using plants.

Nonindustrial private forest (NIPF) land. Privately owned land excluding forest industry land.

Corporate. Owned by corporations, including incorporated farm ownerships.

Individual. All lands owned by individuals, including farm operators.

Other public. An ownership class that includes all public lands except national forests.

Miscellaneous Federal land. Federal land other than national forests.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer residue, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) used in the further manufacture of industrial products for consumer use, or as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

Poletimber-size trees. Softwoods 5.0 to 8.9 inches d.b.h. and hardwoods 5.0 to 10.9 inches d.b.h.

Posts, poles, and pilings. Roundwood products milled (cut or peeled) into standard sizes (lengths and circumferences) to be put in the ground to provide vertical and lateral support in buildings, foundations, utility lines, and fences. May also include nonindustrial (unmilled) products.

Primary wood-using plants. Industries that convert roundwood products (saw logs, veneer logs, pulpwood, etc.) into primary wood products, such as lumber, veneer or sheathing, wood pulp.

Production. The total volume of known roundwood harvested from land within a State, regardless of where it is consumed. Production is the sum of timber harvested and used within a State, and all roundwood exported to other States.

Pulpwood. A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means. The fibers are used to make a broad generic group of pulp products that includes paper products, as well as fiberboard, insulating board, and paperboard.

Receipts. The quantity or volume of industrial roundwood received at a mill or by a group of mills in a State, regardless of the geographic source. Volume of roundwood receipts is equal to the volume of roundwood retained in a State plus roundwood imported from other States.

Retained. Roundwood volume harvested from and processed by mills within the same State.

Rotten trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial manufacture or consumer uses.

Roundwood chipped. Any timber cut primarily for industrial manufacture, delivered to nonpulpmills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, whole trees, and pulpwood sticks.

Roundwood product drain. That portion of total drain used for a product.

Roundwood products. Any primary product, such as lumber, veneer, composite panels, poles, pilings, pulp, or fuelwood that is produced from roundwood.

Salvable dead trees. Standing or downed dead trees that were formerly growing stock and considered merchantable. Trees must be at least 5.0 inches d.b.h. to qualify.

Saplings. Live trees 1.0 to 5.0 inches d.b.h.

Saw log. A roundwood product, usually 8 feet in length or longer, processed into a variety of sawn products such as lumber, cants, pallets, railroad ties, and timbers.

Saw-log portion. The part of the bole of sawtimber trees between a 1-foot stump and the saw-log top.

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods for FIA standards.

Sawtimber-size trees. Softwoods 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-sized trees in board feet (International ¼-inch rule).

Seedlings. Trees < 1.0 inch d.b.h. and > 1 foot tall for hardwoods, > 6 inches tall for softwoods, and > 0.5 inch in diameter at ground level for longleaf pine.

Select red oaks. A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the "other red oaks" group.

Select white oaks. A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the "other white oaks" group.

Softwoods. Coniferous trees, usually evergreen, having leaves that are needles or scale like.

Standard cord. A unit of measure applied to roundwood, usually bolts or split wood. It is a stack of wood 4 feet high, 4 feet wide, and 8 feet long encompassing 128 cubic feet of wood, bark, and air space. This usually translates to approximately 75.0 to 81.0 cubic feet of solid wood for pulpwood, because pulpwood is more uniform.

Standard unit. A unit measure applied to roundwood timber products. Board feet (International ¼-inch rule) is the standard unit used for saw logs and veneer; cords are used for pulpwood, composite panel, and fuelwood; hundred pieces for poles; thousand pieces for posts; and thousand cubic feet for all other miscellaneous forest products.

Timberland. Forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber product output. The total volume of roundwood products from all sources plus the volume of byproducts recovered from mill residues (equals roundwood product drain).

Timber products. Roundwood products and byproducts.

Timber removals. The total volume of trees removed from the timberland inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use. (Note: Includes roundwood products, logging residues, and other removals.)

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet (at maturity).

Upper-stem portion. The part of the main stem of saw-timber trees above the saw-log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the main stem breaks into limbs.

Utilization studies. Studies conducted on active logging operations to develop factors for merchantable portions of trees left in the woods (logging residues), logging damage, and utilization of the unmerchantable portion of growing-stock trees and nongrowing-stock trees.

Veneer log. A roundwood product either rotary cut, sliced, stamped, or sawn into a variety of veneer products such as plywood, finished panels, veneer sheets, or sheathing.

Weight. A unit of measure for mill residues, expressed as oven-dry tons (2,000 oven-dry pounds).

Metric Equivalents

1 acre = 4,046.86 m^2 or 0.404686 ha
1 cubic foot = 0.028317 m^3
1 inch = 2.54 cm or 0.0254 m
Breast height = 1.4 m above the ground
1 square foot = 929.03 cm^2 or 0.0929 m^2
1 square foot per acre basal area = 0.229568 m^2/ha
1 pound = 0.454 kg
1 ton = 0.907 MT

Conversion Factors[a]

Saw logs	
Softwood	0.18282 cubic foot = 1 board foot
	5.47 board feet = 1 cubic foot
Hardwood	0.16393 cubic foot = 1 board foot
	6.10 board feet = 1 cubic foot
Veneer logs	
Softwood	0.16129 cubic foot = 1 board foot
	6.20 board feet = 1 cubic foot
Hardwood	0.16000 cubic foot = 1 board foot
	6.25 board feet = 1 cubic foot
Pulpwood[b]	
Softwood	73.3 cubic feet per cord
Hardwood	76.1 cubic feet per cord

[a] Conversion factors vary with stem size (d.b.h.) and species. The factors shown are for trees of average diameters removed in Kentucky during the most recent survey period.

[b] Cubic feet of solid wood per cord.

Species List[a]

Common name	Scientific name[b]
Softwoods	
Eastern redcedar	*Juniperus virginiana* L.
Shortleaf pine	*Pinus echinata* Mill.
Table Mt. pine	*P. pungens* Lamb.
Eastern white pine	*P. strobus* L.
Loblolly pine	*P. taeda* L.
Virginia pine	*P. virginiana* Mill.
Baldcypress	*Taxodium distichum* (L.) Rich.
Eastern hemlock	*Tsuga canadensis* (L.) Carr.
Hardwoods	
Boxelder	*Acer negundo* L.
Red maple	*A. rubrum* L.
Silver maple	*A. saccharinum* L.
Sugar maple	*A. saccharum* Marsh.
Buckeye	*Aesculus* spp. L.
Ohio buckeye	*A. glabra* Willd.
Ailanthus	*Ailanthus altissima* (Mill.) Swingle
Serviceberry	*Amelanchier* spp. Medic.
Yellow birch	*Betula alleghaniensis* Britton
River birch	*Betula nigra* L.
American hornbeam	*Carpinus caroliniana* Walt.
Hickory	*Carya* spp. Nutt.
Water hickory	*C. aquatica* (Michx. f.) Nutt.
Bitternut hickory	*C. cordiformis* (Wangenh.) K. Koch
Pignut hickory	*C. glabra* (Mill.) Sweet
Pecan	*C. illinoensis* (Wangenh.) K. Koch
Shellbark hickory	*C. laciniosa* (Michx. f.) Loud.
Nutmeg hickory	*C. myristiciformis* (Mich. f.) Nutt.
Shagbark hickory	*C. ovata* (Mill.) K. Koch
Black hickory	*C. texana* Buckl.
Mockernut hickory	*C. tomentosa* (Poir.) Nutt.
Allegheny chinkapin	*Castanea pumila* Mill.
Chinkapin	*Castanopsis* (D. Don) Spach
Catalpa	*Catalpa* spp. Scop.
Sugarberry	*Celtis laevigata* Willd.
Hackberry	*C. occidentalis* L.
Eastern redbud	*Cercis canadensis* L.
Flowering dogwood	*Cornus florida* L.
Hawthorn	*Crataegus* spp. L.
Common persimmon	*Diospyros virginiana* L.
American beech	*Fagus grandifolia* Ehrh.
White ash	*Fraxinus americana* L.
Pumpkin ash	*F. profunda* (Bush) Bush
Blue ash	*F. quadrangulata* Michx.
Waterlocust	*Gleditsia aquatica* Marsh.
Honeylocust	*G. triacanthos* L.
Kentucky coffeetree	*Gymnocladus dioicus* (L.) K. Koch
American holly	*Ilex opaca* Ait.

Common name	Scientific name[b]
Hardwoods (continued)	
Black walnut	*Juglans nigra* L.
Sweetgum	*Liquidambar styraciflua* L.
Yellow-poplar	*Liriodendron tulipifera* L.
Osage-orange	*Maclura pomifera* (Raf.) Schneid.
Cucumbertree	*Magnolia acuminata* L.
Southern magnolia	*M. grandiflora* L.
Bigleaf magnolia	*M. macrophylla* Michx.
Apple	*Malus* spp. Mill.
Chinaberry	*Melia azedarach* L.
White mulberry	*Morus alba* L.
Red mulberry	*M. rubra* L.
Water tupelo	*Nyssa aquatica L.*
Blackgum	*N. sylvatica* Marsh.
Swamp tupelo	*N. sylvatica* var. *biflora* (Walt.) Sarg.
Eastern hophornbeam	*Ostrya virginiana* (Mill.) K. Koch
Sourwood	*Oxydendrum arboreum* (L.) DC.
American sycamore	*Platanus occidentalis* L.
Cottonwood	*Populus* spp. L.
Black cherry	*Prunus serotina* Ehrh.
White oak	*Quercus alba* L.
Scarlet oak	*Q. coccinea* Muenchh.
Durand oak	*Q. durandii* Buckl.
Southern red oak	*Q. falcata* Michx.
Cherrybark oak	*Q. falcata* var. *pagodifolia* Ell.
Overcup oak	*Q. lyrata* Walt.
Swamp chestnut oak	*Q. michauxii* Nutt.
Chinkapin oak	*Q. muehlenbergii* Engelm.
Water oak	*Q. nigra* L.
Nuttall oak	*Q. nuttallii* Palmer
Pin oak	*Q. palustris* Muenchh.
Willow oak	*Q. phellos* L.
Chestnut oak	*Q. prinus* L.
Northern red oak	*Q. rubra* L.
Shumard oak	*Q. shumardii* Buckl.
Post oak	*Q. stellata* Wangenh.
Black oak	*Q. velutina* Lam.
Black locust	*Robinia pseudoacacia* L.
Willow	*Salix* spp. L.
Sassafras	*Sassafras albidum* (Nutt.) Nees
American basswood	*Tilia americana* L.
White basswood	*T. heterophylla* Vent.
Winged elm	*Ulmus alata* Michx.
American elm	*U. americana* L.
Cedar elm	*U. crassifolia* Nutt.
Slippery elm	*U. rubra* Muhl.
September elm	*U. serotina* Sarg.S
Rock elm	*U. thomasii* Sarg.

[a] Common and scientific names of tree species > 1.0 inch d.b.h. occurring in the FIA sample.

[b] Little (1979).

Appendix

Index of Tables

Table A.1—Output of industrial products by product and species group, Kentucky, 2003 and 2005

Product and species group	Year 2003	2005	Change	Change
	- - - - - thousand cubic feet - - - - -			*percent*
Saw logs				
Softwood	4,642	4,429	-213	-4.6
Hardwood	141,027	138,870	-2,157	-1.5
Total	145,669	143,299	-2,370	-1.6
Veneer logs				
Softwood	88	268	180	204.5
Hardwood	5,310	7,280	1,970	37.1
Total	5,398	7,548	2,150	39.8
Pulpwood[a]				
Softwood	3,143	4,162	1,019	32.4
Hardwood	18,240	20,389	2,149	11.8
Total	21,383	24,551	3,168	14.8
Composite panels				
Softwood	981	2,038	1,057	107.7
Hardwood	11,519	12,061	542	4.7
Total	12,500	14,099	1,599	12.8
Other industrial				
Softwood	1,590	1,639	49	3.1
Hardwood	44	44	0	—
Total	1,634	1,683	49	3.0
All industrial				
Softwood	10,444	12,536	2,092	20.0
Hardwood	176,140	178,644	2,504	1.4
Total	186,584	191,180	4,596	2.5
Byproduct output				
Softwood	2,698	2,788	90	3.3
Hardwood	86,944	88,502	1,558	1.8
Total	89,642	91,290	1,648	1.8
Total output				
Softwood	13,142	15,324	2,182	16.6
Hardwood	263,084	267,146	4,062	1.5
Total	276,226	282,470	6,244	2.3

— = negligible.

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (1,980,000 cubic feet in 2003 and 373,000 cubic feet in 2005).

Table A.2—Roundwood receipts by product and species group, Kentucky, 2003 and 2005

Product and species group	Year		Change	Change
	2003	2005		
	- - - - - *thousand cubic feet* - - - - -			*percent*
Saw logs				
Softwood	4,018	4,172	154	3.8
Hardwood	143,066	140,738	-2,328	-1.6
Total	147,084	144,910	-2,174	-1.5
Veneer logs				
Softwood	17	0	-17	-100.0
Hardwood	1,937	1,950	13	0.7
Total	1,954	1,950	-4	-0.2
Pulpwood[a]				
Softwood	2,055	2,317	262	12.7
Hardwood	46,606	53,311	6,705	14.4
Total	48,661	55,628	6,967	14.3
Other industrial				
Softwood	1,772	1,772	0	—
Hardwood	10,121	10,120	-1	0.0
Total	11,893	11,892	-1	0.0
Total output				
Softwood	7,862	8,261	399	5.1
Hardwood	201,730	206,119	4,389	2.2
Total	209,592	214,380	4,788	2.3

— = negligible; 0.0 = a value of > 0.0 but < 0.05 for the cell.

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (2,264,000 cubic feet in 2003 and 373,000 cubic feet in 2005).

Table A.3—Number of primary wood-using plants by industry, Kentucky, 1969 to 2005

Industry	Year								
	1969	1974	1986	1995	1997	1999	2001	2003	2005
	number								
Sawmills	538	388	408	376	365	330	317	282	277
Veneer or plywood mills	4	4	3	3	4	3	3	3	3
Pulpmills	2	2	2	2	2	2	2	2	2
Composite panel mills	0	0	0	1	1	1	1	1	1
Other mills	45	26	22	19	19	12	14	9	9
All plants	589	420	435	401	391	348	337	297	292

Table A.4—Roundwood receipts by sawmill size, Kentucky, 2003 and 2005

Sawmill size class[a]	2003			2005		
	Mills	Volume		Mills	Volume	
mmbf	*number*	*mbf*	*percent*	*number*	*mbf*	*percent*
< 1.0	118	38,350	4	114	35,550	4
1.0–4.99	111	298,299	33	110	283,094	32
5.0–9.99	32	218,073	25	35	237,688	27
> 10	21	340,091	38	18	325,083	37
Total	282	894,813	100	277	881,415	100

[a] Based on volume received as opposed to actual capacity.

Table A.5—Roundwood receipts by species and type of mill, Kentucky, 2005

Species	All mills	Type of mill				
		Sawmills	Veneer mills		Pulpmills[a]	Other mills
			Pine plywood	Other veneer		
	thousand cubic feet					
Softwood						
Yellow pine	2,311	1,982	0	0	NA	329
Eastern white pine	669	529	0	0	NA	140
Cedar	2,795	1,544	0	0	NA	1,251
Cypress	24	24	0	0	NA	0
Other softwood	145	93	0	0	NA	52
Unclassified	2,317	0	0	0	2,317	0
Total softwoods	8,261	4,172	0	0	2,317	1,772
Hardwood						
Blackgum and tupelo	629	629	0	0	NA	0
Soft maple	4,942	4,133	0	0	NA	809
Sweetgum	870	866	0	1	NA	3
Yellow-poplar	39,710	31,113	0	17	NA	8,580
Other soft hardwood	4,616	3,895	0	16	NA	705
Hickory	9,043	9,024	0	16	NA	3
Red oak	37,635	36,335	0	1,295	NA	5
White oak	29,234	29,117	0	107	NA	10
Other hard hardwood	26,129	25,626	0	498	NA	5
Unclassified	53,311	0	0	0	53,311	0
Total hardwoods	206,119	140,738	0	1,950	53,311	10,120
All species	214,380	144,910	0	1,950	55,628	11,892

NA = not applicable.

[a] Collected only by softwood and hardwood and includes roundwood chipped.

Table A.6—Industrial roundwood movement by year and species group, Kentucky, 2003 and 2005

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
	thousand cubic feet				
			Softwood		
2003	10,444	3,452	6,992	870	7,862
2005	12,536	5,755	6,781	1,480	8,261
			Hardwood		
2003	176,140	18,154	157,986	43,744	201,730
2005	178,644	21,015	157,629	48,490	206,119
			All species		
2003	186,584	21,606	164,978	44,614	209,592
2005	191,180	26,770	164,410	49,970	214,380

Table A.7—Industrial roundwood movement by product and species group, Kentucky, 2005

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
Saw logs					
Softwood	4,429	594	3,835	337	4,172
Hardwood	138,870	8,862	130,008	10,730	140,738
Total	143,299	9,456	133,843	11,067	144,910
Veneer logs					
Softwood	268	268	0	0	0
Hardwood	7,280	6,420	860	1,090	1,950
Total	7,548	6,688	860	1,090	1,950
Pulpwood[a]					
Softwood	4,162	2,796	1,366	951	2,317
Hardwood	20,389	3,748	16,641	36,670	53,311
Total	24,551	6,544	18,007	37,621	55,628
Other industrial					
Softwood	3,677	2,097	1,580	192	1,772
Hardwood	12,105	1,985	10,120	0	10,120
Total	15,782	4,082	11,700	192	11,892
All products					
Softwood	12,536	5,755	6,781	1,480	8,261
Hardwood	178,644	21,015	157,629	48,490	206,119
Total	191,180	26,770	164,410	49,970	214,380

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

Table A.8—Saw-log volume by destination, source, and species group, Kentucky, 2005

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Kentucky (retained)	133,843	3,835	130,008
Exports to			
Alabama	26	26	0
Indiana	3,011	52	2,959
Missouri	1,059	0	1,059
Ohio	1,277	17	1,260
Tennessee	2,061	60	2,001
Virginia	2,022	439	1,583
Total	9,456	594	8,862
Imports from			
Arkansas	1	0	1
Illinois	516	0	516
Indiana	341	0	341
Missouri	167	0	167
Ohio	114	2	112
Tennessee	8,453	333	8,120
Virginia	1,071	0	1,071
West Virginia	404	2	402
Total	11,067	337	10,730

Table A.9—Veneer volume by destination, source, and species group, Kentucky, 2005

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Kentucky (retained)	860	0	860
Exports to			
Georgia	4,234	195	4,039
Indiana	575	3	572
Michigan	145	0	145
Missouri	12	0	12
North Carolina	1,408	70	1,338
Ohio	115	0	115
Wisconsin	199	0	199
Total	6,688	268	6,420
Imports from			
Indiana	142	0	142
Maryland	31	0	31
Michigan	26	0	26
New Hampshire	45	0	45
New York	3	0	3
Ohio	383	0	383
Pennsylvania	179	0	179
Virginia	9	0	9
West Virginia	272	0	272
Total	1,090	0	1,090

Table A.10—Pulpwood volume by destination, source, and species group, Kentucky, 2005[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Kentucky (retained)	18,007	1,366	16,641
Exports to			
Arkansas	24	0	24
Louisiana	22	0	22
Ohio	3,128	2,366	762
South Carolina	555	0	555
Tennessee	2,815	430	2,385
Total	6,544	2,796	3,748
Imports from			
Georgia	18	0	18
Illinois	970	109	861
Indiana	602	0	602
Mississippi	13,849	0	13,849
Missouri	2,808	10	2,798
North Carolina	699	0	699
Ohio	448	0	448
Tennessee	17,611	832	16,779
Virginia	616	0	616
Total	37,621	951	36,670

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

Table A.11—Other industrial volume by destination, source, and species group, Kentucky, 2005[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Kentucky (retained)	11,700	1,580	10,120
Exports to			
Indiana	49	49	0
Ohio	10	10	0
Tennessee	2,850	2,030	820
West Virginia	1,173	8	1,165
Total	4,082	2,097	1,985
Imports from			
Alabama	22	22	0
Missouri	37	37	0
Nebraska	22	22	0
Tennessee	81	81	0
Virginia	30	30	0
Total	192	192	0

[a] Includes poles, posts, mulch, firewood, log homes, charcoal, composite panel, and all other industrial mills.

Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Kentucky, 2005

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
		thousand cubic feet			
Saw logs					
Softwood	2,160	269	1,138	737	16
Hardwood	82,126	14,606	38,536	28,556	428
Total	84,286	14,875	39,674	29,293	444
Veneer logs					
Softwood	0	0	0	0	0
Hardwood	747	217	351	179	0
Total	747	217	351	179	0
Pulpwood					
Softwood	243	243	0	0	0
Hardwood	6,650	6,650	0	0	0
Total	6,893	6,893	0	0	0
Other industrial[a]					
Softwood	760	189	408	163	0
Hardwood	2,276	2,268	4	4	0
Total	3,036	2,457	412	167	0
Total					
Softwood	3163	701	1,546	900	16
Hardwood	91,799	23,741	38,891	28,739	428
Total	94,962	24,442	40,437	29,639	444

[a] Includes poles, pilings, posts, and all other industrial products.

Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Kentucky, 2003 and 2005

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
	thousand cubic feet									
Fiber products										
Softwood	180	173	0	0	180	173	0	0	0	0
Hardwood	22,748	21,160	0	0	22,748	21,108	0	52	0	0
Total	22,928	21,333	0	0	22,928	21,281	0	52	0	0
Particleboard										
Softwood	67	88	0	0	63	42	4	46	0	0
Hardwood	2,919	2,890	8	307	2,820	2,492	79	79	12	12
Total	2,986	2,978	8	307	2,883	2,534	83	125	12	12
Charcoal/ chemical wood										
Softwood	96	156	1	0	11	46	80	106	4	4
Hardwood	13,029	12,094	992	1,166	2,966	2,539	8,982	8,290	89	99
Total	13,125	12,250	993	1,166	2,977	2,585	9,062	8,396	93	103
Sawn products										
Softwood	0	0	0	0	0	0	0	0	0	0
Hardwood	59	1,088	0	0	59	1,088	0	0	0	0
Total	59	1,088	0	0	59	1,088	0	0	0	0
Fuel										
Softwood	522	528	266	278	157	156	99	94	0	0
Hardwood	27,252	28,963	9,742	10,480	4,659	5,885	12,795	12,574	56	24
Total	27,774	29,491	10,008	10,758	4,816	6,041	12,894	12,668	56	24
Miscellaneous										
Softwood	1,833	1,843	369	371	941	981	509	480	14	11
Hardwood	20,937	22,307	12,313	11,293	2,218	4,414	6,030	6,308	376	292
Total	22,770	24,150	12,682	11,664	3,159	5,395	6,539	6,788	390	303
Not used										
Softwood	371	375	51	52	145	148	174	174	1	1
Hardwood	2,938	3,297	477	495	1,137	1,365	1,323	1,436	1	1
Total	3,309	3,672	528	547	1,282	1,513	1,497	1,610	2	2
All products										
Softwood	3,069	3,163	687	701	1,497	1,546	866	900	19	16
Hardwood	89,882	91,799	23,532	23,741	36,607	38,891	29,209	28,739	534	428
Total	92,951	94,962	24,219	24,442	38,104	40,437	30,075	29,639	553	444

Table A.14—Roundwood timber product output by county, product, and species group, Kentucky, 2005

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	thousand cubic feet											
Adair	165	2,275	97	2,268	0	0	0	7	0	0	68	0
Allen	6	2,963	6	2,936	0	0	0	27	0	0	0	0
Anderson	135	76	135	76	0	0	0	0	0	0	0	0
Ballard	67	1,098	0	710	0	12	67	376	0	0	0	0
Barren	42	2,405	42	2,405	0	0	0	0	0	0	0	0
Bath	125	494	20	494	0	0	0	0	0	0	105	0
Bell	0	946	0	945	0	1	0	0	0	0	0	0
Boone	0	150	0	150	0	0	0	0	0	0	0	0
Bourbon	0	146	0	0	0	146	0	0	0	0	0	0
Boyd	0	288	0	285	0	0	0	3	0	0	0	0
Boyle	0	190	0	190	0	0	0	0	0	0	0	0
Bracken	3	241	3	241	0	0	0	0	0	0	0	0
Breathitt	46	4,114	45	2,097	0	505	1	0	0	1,512	0	0
Breckinridge	120	4,042	119	2,492	1	228	0	1,322	0	0	0	0
Bullitt	47	383	47	383	0	0	0	0	0	0	0	0
Butler	67	1,107	60	922	0	18	7	167	0	0	0	0
Caldwell	357	1,235	0	888	0	0	357	347	0	0	0	0
Calloway	497	646	0	523	0	0	497	123	0	0	0	0
Campbell	30	0	30	0	0	0	0	0	0	0	0	0
Carlisle	8	2,197	0	1,180	0	0	8	1,017	0	0	0	0
Carroll	45	37	9	37	0	0	0	0	0	0	36	0
Carter	123	1,842	102	1,759	0	0	6	83	0	0	15	0
Casey	35	3,749	35	3,738	0	0	0	11	0	0	0	0
Christian	17	2,078	1	2,076	0	0	16	2	0	0	0	0
Clark	0	704	0	0	0	149	0	555	0	0	0	0
Clay	25	1,100	13	1,100	0	0	0	0	0	0	12	0
Clinton	29	1,247	29	1,247	0	0	0	0	0	0	0	0
Crittenden	1,457	1,727	0	899	0	106	442	312	1,015	410	0	0
Cumberland	49	3,461	49	3,461	0	0	0	0	0	0	0	0
Daviess	59	698	51	695	0	0	8	3	0	0	0	0
Edmonson	67	571	67	430	0	0	0	141	0	0	0	0
Elliott	50	885	0	877	0	0	0	8	0	0	50	0
Estill	102	2,107	102	2,030	0	77	0	0	0	0	0	0
Fayette	1	77	1	0	0	77	0	0	0	0	0	0
Fleming	0	813	0	813	0	0	0	0	0	0	0	0
Floyd	7	2,732	7	2,329	0	0	0	0	0	403	0	0
Franklin	27	0	9	0	0	0	0	0	0	0	18	0
Fulton	1	479	1	283	0	0	0	196	0	0	0	0
Gallatin	38	0	2	0	0	0	0	0	0	0	36	0
Garrard	0	141	0	141	0	0	0	0	0	0	0	0
Grant	81	159	9	86	0	73	0	0	0	0	72	0
Graves	242	1,769	33	1,259	0	0	209	510	0	0	0	0
Grayson	109	1,737	15	1,500	0	0	44	237	0	0	50	0
Green	38	1,845	38	1,844	0	0	0	1	0	0	0	0
Greenup	29	4,481	9	1,634	0	0	10	2,702	0	145	10	0

continued

Table A.14—Roundwood timber product output by county, product, and species group, Kentucky, 2005 (continued)

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	thousand cubic feet											
Hancock	59	1,031	6	1,031	0	0	53	0	0	0	0	0
Hardin	124	1,286	124	1,238	0	48	0	0	0	0	0	0
Harlan	458	5,665	439	2,782	19	867	0	0	0	2,016	0	0
Harrison	6	0	6	0	0	0	0	0	0	0	0	0
Hart	133	1,939	133	1,932	0	0	0	7	0	0	0	0
Henderson	0	73	0	73	0	0	0	0	0	0	0	0
Henry	379	20	56	17	0	3	0	0	0	0	323	0
Hickman	18	908	18	707	0	0	0	201	0	0	0	0
Hopkins	83	1,424	26	1,344	0	0	57	80	0	0	0	0
Jackson	79	1,088	52	1,088	0	0	0	0	0	0	27	0
Jefferson	4	145	2	145	0	0	2	0	0	0	0	0
Jessamine	0	78	0	0	0	78	0	0	0	0	0	0
Johnson	7	1,172	7	947	0	0	0	0	0	225	0	0
Kenton	0	86	0	86	0	0	0	0	0	0	0	0
Knott	0	1,480	0	1,077	0	0	0	0	0	403	0	0
Knox	102	5,409	92	2,559	0	0	3	2,737	0	113	7	0
Larue	2	1,167	2	1,108	0	59	0	0	0	0	0	0
Laurel	541	10,357	148	3,859	0	1,439	365	2,943	0	2,116	28	0
Lawrence	9	939	9	796	0	110	0	33	0	0	0	0
Lee	56	2,411	56	2,109	0	0	0	0	0	302	0	0
Leslie	48	3,753	32	1,934	16	307	0	0	0	1,512	0	0
Letcher	21	2,755	2	2,394	19	361	0	0	0	0	0	0
Lewis	47	5,577	33	5,247	0	0	14	330	0	0	0	0
Lincoln	10	1,062	10	1,062	0	0	0	0	0	0	0	0
Livingston	209	1,041	0	447	0	0	209	594	0	0	0	0
Logan	86	1,224	86	1,206	0	0	0	18	0	0	0	0
Lyon	1,378	1,048	0	639	0	0	1,378	409	0	0	0	0
Madison	22	369	22	225	0	144	0	0	0	0	0	0
Magoffin	4	475	4	475	0	0	0	0	0	0	0	0
Marion	283	2,509	48	2,442	0	67	0	0	0	0	235	0
Marshall	0	903	0	797	0	0	0	106	0	0	0	0
Martin	42	733	34	277	0	0	0	0	8	456	0	0
Mason	303	339	192	335	0	4	0	0	0	0	111	0
McCracken	0	418	0	334	0	0	0	84	0	0	0	0
McCreary	1,078	2,437	63	1,440	0	460	0	127	1,015	410	0	0
McLean	12	1,342	0	1,294	0	0	12	48	0	0	0	0
Meade	11	1,197	10	1,094	1	103	0	0	0	0	0	0
Menifee	125	1,617	93	1,599	0	0	1	8	0	0	31	10
Mercer	2	106	2	106	0	0	0	0	0	0	0	0
Metcalfe	75	3,230	15	3,158	0	0	0	72	0	0	60	0
Monroe	2	2,559	2	2,559	0	0	0	0	0	0	0	0
Montgomery	0	141	0	92	0	49	0	0	0	0	0	0
Morgan	117	1,699	75	1,683	0	0	0	0	0	0	42	16
Muhlenberg	284	1,942	0	1,738	0	0	284	204	0	0	0	0
Nelson	175	827	175	827	0	0	0	0	0	0	0	0

continued

Table A.14—Roundwood timber product output by county, product, and species group, Kentucky, 2005 (continued)

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	thousand cubic feet											
Ohio	148	7,548	25	3,440	0	139	74	3,969	0	0	49	0
Oldham	2	83	2	83	0	0	0	0	0	0	0	0
Owen	145	144	73	71	0	73	0	0	0	0	72	0
Owsley	9	650	9	650	0	0	0	0	0	0	0	0
Pendleton	94	3	58	3	0	0	0	0	0	0	36	0
Perry	1	2,816	1	1,808	0	0	0	0	0	1,008	0	0
Pike	16	5,259	0	3,399	16	930	0	0	0	930	0	0
Powell	41	1,081	41	1,015	0	62	0	4	0	0	0	0
Pulaski	200	4,871	190	4,867	0	4	0	0	0	0	10	0
Robertson	6	48	6	48	0	0	0	0	0	0	0	0
Rockcastle	32	1,749	25	1,749	0	0	0	0	0	0	7	0
Rowan	42	2,067	30	1,957	0	0	0	10	0	100	12	0
Russell	70	2,027	24	2,021	0	0	0	6	0	0	46	0
Scott	0	76	0	0	0	76	0	0	0	0	0	0
Shelby	9	154	9	154	0	0	0	0	0	0	0	0
Simpson	0	210	0	197	0	0	0	13	0	0	0	0
Spencer	81	14	81	14	0	0	0	0	0	0	0	0
Taylor	25	2,399	3	2,398	0	0	0	1	0	0	22	0
Todd	0	660	0	647	0	0	0	13	0	0	0	0
Trigg	4	1,405	4	1,282	0	0	0	123	0	0	0	0
Trimble	19	97	1	97	0	0	0	0	0	0	18	0
Union	19	62	0	62	0	0	19	0	0	0	0	0
Warren	63	1,392	63	1,392	0	0	0	0	0	0	0	0
Washington	71	457	71	457	0	0	0	0	0	0	0	0
Wayne	46	3,585	46	3,585	0	0	0	0	0	0	0	0
Webster	0	230	0	228	0	0	0	2	0	0	0	0
Whitley	386	3,146	174	2,545	196	505	16	96	0	0	0	0
Wolfe	267	995	233	976	0	0	3	1	0	0	31	18
All counties	12,536	178,644	4,429	138,870	268	7,280	4,162	20,389	2,038	12,061	1,639	44

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (373,000 cubic feet in 2005).

Table A.15—Total roundwood output by product, species group, and source of material, Kentucky, 2005

Product and species group	All sources	Growing-stock trees			Other sources
		Total	Sawtimber	Poletimber	
	thousand cubic feet				
Saw logs					
Softwood	4,429	4,267	4,198	69	162
Hardwood	138,870	117,761	113,649	4,113	21,109
Total	143,299	122,028	117,847	4,181	21,271
Veneer logs and bolts					
Softwood	268	251	237	14	17
Hardwood	7,280	7,027	6,834	193	253
Total	7,548	7,278	7,072	207	270
Pulpwood					
Softwood	4,162	3,829	2,585	1,244	333
Hardwood	20,389	18,953	6,795	12,158	1,436
Total	24,551	22,782	9,379	13,402	1,769
Composite panels					
Softwood	2,038	1,875	1,266	609	163
Hardwood	12,061	11,399	4,087	7,312	662
Total	14,099	13,274	5,353	7,921	825
Poles and posts					
Softwood	436	402	320	82	34
Hardwood	44	42	42	1	2
Total	480	444	361	83	36
Other miscellaneous					
Softwood	1,203	1,107	747	360	96
Hardwood	0	0	0	0	0
Total	1,203	1,107	747	360	96
Total industrial products					
Softwood	12,536	11,730	9,353	2,377	806
Hardwood	178,644	155,183	131,406	23,777	23,461
Total	191,180	166,913	140,759	26,154	24,267
Fuelwood					
Softwood	58	44	44	1	14
Hardwood	20,443	18,631	18,400	231	1,812
Total	20,501	18,676	18,444	232	1,825
All products					
Softwood	12,594	11,774	9,396	2,378	820
Hardwood	199,087	173,815	149,807	24,008	25,272
Total	211,681	185,589	159,203	26,385	26,093

Numbers in rows and columns may not sum to totals due to rounding.

Table A.16—Total roundwood output by species group, survey region, and ownership class, Kentucky, 2005

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwoods				
Eastern	595	0	15	580
Northern Cumberland	865	3	0	862
Southern Cumberland	2,469	11	0	2,458
Bluegrass	1,645	6	0	1,639
Pennyroyal	1,803	9	0	1,794
Western Coalfield	2,781	0	0	2,781
Western	2,436	0	0	2,436
Total softwoods	12,594	29	15	12,550
Hardwoods				
Eastern	28,075	7	1,864	26,204
Northern Cumberland	25,763	337	0	25,426
Southern Cumberland	39,578	312	0	39,266
Bluegrass	7,413	167	0	7,246
Pennyroyal	49,934	1,277	3,099	45,559
Western Coalfield	35,049	259	0	34,790
Western	13,275	714	1,255	11,307
Total hardwoods	199,087	3,073	6,218	189,797
All species	211,681	3,102	6,233	202,347

Numbers in rows and columns may not sum to totals due to rounding.

Table A.17—Total roundwood output by species group, detailed species group, and product, Kentucky, 2005

Species group and detailed species group	Total	Product						
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Other miscellaneous	Fuel-wood
		thousand cubic feet						
Softwood								
Cedar	375	299	0	0	17	0	57	2
Eastern white pine	185	158	1	1	24	0	0	1
Loblolly-shortleaf pine	1,316	499	180	464	26	141	0	7
Other yellow pines	10,592	3,465	87	3,696	369	1,781	1,146	48
Hemlock	125	8	0	0	0	117	0	1
Total softwoods	12,594	4,429	268	4,162	436	2,038	1,203	58
Hardwood								
Soft maple	6,394	4,740	133	788	1	75	0	656
Hard maple	6,661	4,426	216	901	0	434	0	684
Other birch	1,559	829	104	326	0	140	0	160
Hickory	21,586	15,155	696	2,212	4	1,302	0	2,217
Beech	8,833	6,588	277	513	0	547	0	907
Ash	5,758	4,067	255	783	3	59	0	591
Black walnut	2,848	2,169	160	172	0	55	0	292
Sweetgum	3,830	2,428	55	946	0	8	0	394
Yellow-poplar	29,900	19,207	1,662	2,988	5	2,968	0	3,070
Blackgum-tupelo	1,903	1,345	27	234	0	101	0	195
Sycamore	1,232	939	15	107	0	45	0	127
Cottonwood	1,054	631	44	272	0	0	0	108
Black cherry	909	612	42	79	0	83	0	93
Select white oaks	26,390	20,372	693	1,546	5	1,064	0	2,710
Other white oaks	13,804	9,557	673	1,177	11	968	0	1,418
Select red oaks	15,117	10,431	508	1,893	1	731	0	1,552
Other red oaks	40,786	28,819	1,129	4,199	14	2,436	0	4,188
Basswood	2,508	1,327	213	273	0	437	0	257
Elm	3,549	2,385	88	649	0	61	0	364
Other eastern hardwoods	4,467	2,843	289	331	0	546	0	459
Total hardwoods	199,087	138,870	7,280	20,389	44	12,061	0	20,443
All species	211,681	143,299	7,548	24,551	480	14,099	1,203	20,501

Numbers in rows and columns may not sum to totals due to rounding.

Table A.18—Total roundwood output by species group, detailed species group, and ownership class, Kentucky, 2005

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwood				
Cedar	375	4	0	371
Eastern white pine	185	1	1	183
Loblolly-shortleaf pine	1,316	5	0	1,312
Other yellow pines	10,592	19	14	10,559
Hemlock	125	0	0	125
Total softwoods	12,594	29	15	12,550
Hardwood				
Soft maple	6,394	47	217	6,129
Hard maple	6,661	70	649	5,942
Other birch	1,559	9	0	1,550
Hickory	21,586	591	399	20,596
Beech	8,833	73	349	8,412
Ash	5,758	123	0	5,634
Black walnut	2,848	74	5	2,769
Sweetgum	3,830	135	0	3,695
Yellow-poplar	29,900	193	663	29,044
Blackgum-tupelo	1,903	47	67	1,788
Sycamore	1,232	13	0	1,219
Cottonwood	1,054	0	0	1,054
Black cherry	909	17	33	860
Select white oaks	26,390	549	1,172	24,670
Other white oaks	13,804	154	741	12,909
Select red oaks	15,117	271	280	14,566
Other red oaks	40,786	553	1,231	39,003
Basswood	2,508	1	226	2,281
Elm	3,549	102	17	3,430
Other eastern hardwoods	4,467	51	170	4,247
Total hardwoods	199,087	3,073	6,218	189,797
All species	211,681	3,102	6,233	202,347

Numbers in rows and columns may not sum to totals due to rounding.

Bentley, James W.; Lowe, Larry. 2007. Kentucky's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS–124. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 32 p.

In 2005, roundwood output from Kentucky's forests totaled 191 million cubic feet, 3 percent more than in 2003. Mill byproducts generated from primary manufacturers increased 2 percent to 91 million cubic feet. Ninety-six percent of plant residues were used, primarily for fuel, miscellaneous, and fiber products. Saw logs were the leading roundwood product at 143 million cubic feet; pulpwood ranked a distant second at 25 million cubic feet; composite panels were third at 14 million cubic feet. The number of primary processing plants declined from 297 in 2003 to 292 in 2005. Total receipts increased 2 percent to 214 million cubic feet.

Keywords: FIA, pulpwood, residues, roundwood, saw logs, veneer logs, wood movement.

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